

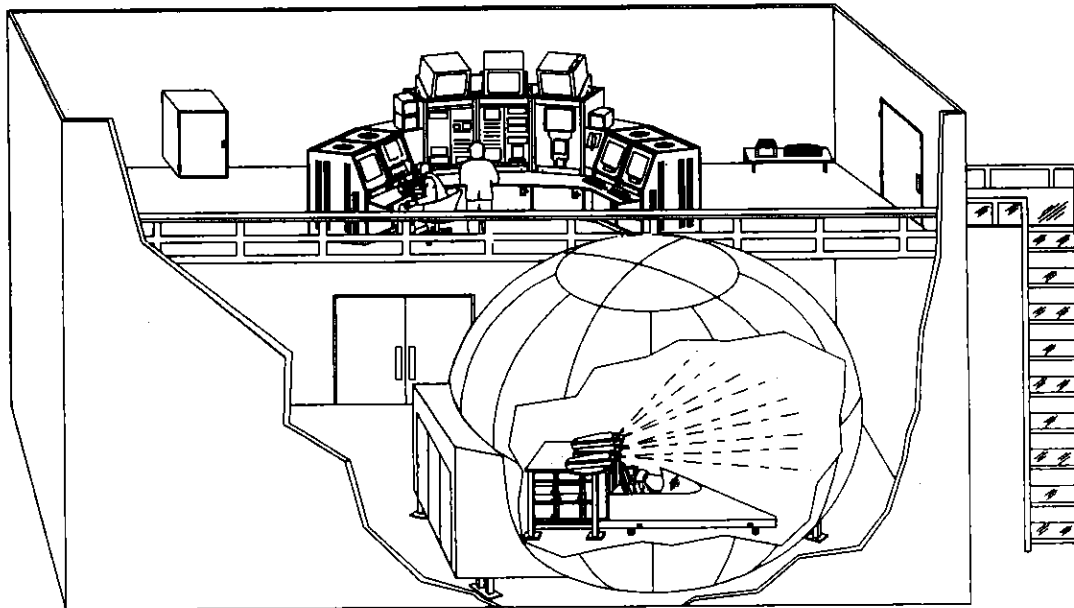
**SUMMARY OF
LOW COST OPERATIONAL FLIGHT TRAINER**

June 1999

Device 2F95A

NAVAL AIR WARFARE CENTER TRAINING SYSTEMS DIVISION

ORLANDO, FLORIDA



TRAINING CATEGORY:

Aviation

ORIGINATING AGENCY:

CNO/AIR

**SECURITY CLASSIFICATION OF
DEVICE:**

Device 2F95A is Confidential.

PURPOSE OF DEVICE:

Develop pilot proficiency in F-14A/B aircraft operations in day and night environments.

INTENDED USE:

The LCOFT is used to train student pilots in F-14A/B operational, procedures; and tactical procedures when linked to Device 15C9A. The trainer is designed for both day and night environments. Training conducted in normal and emergency aircraft procedures as well as tactical mission requirements in concert with Device 15C9A.

FUNCTIONAL DESCRIPTION:

Device 2F95A is installed in a training facility with a high bay area, a maintenance/computer/IOS area, and a utility area. The 2F95A trainer consists of several elements. The first is a realistic F-14A/B cockpit driven by a VME I/O system, with a force feel control loading system, an aural cueing system to simulate cockpit sounds, and a displays group interface to drive government furnished displays. The Instructor Operator Station (IOS) provides feedback of trainee performance through many switches and simulated gauges. The IOS also provides simulation controls and performance criteria that the instructor needs to control and evaluate actions in the cockpit. At the heart of the IOS are two Alpha computers. The first computer, an AlphaStation 5/333, provides the simulation software and environment and a means with which to perform daily readiness and functional testing of trainer system components. The second Alpha, an AlphaStation 5/266, is used for two purposes. The first purpose is to provide the aerodynamic and airframe models necessary to give the LCOFT realistic F-14 flying characteristics. The second purpose is to interface with the visual system. The visual system consists of an Image Generator (Evans and Sutherland 4530) which creates the visual images based upon manual input and a graphical database. The ESIG then sends 4 views to BARCO projectors, which displays the images on a 21-foot diameter partial dome.

OPERATIONAL EQUIPMENT:

Vertical Display Indicator, Horizontal Situation Display, Clock, Gun Rounds Counter, Throttle Quadrant, Control Stick, Ejection Seat, VDIG Processor and MDIG Processor.

PHYSICAL INFORMATION:

The device is installed in a permanent building at NAS Oceana, VA. The general dimensions of the device are 53' X 50' X 24'.

EQUIPMENT REQUIRED (Not Supplied):

None

POWER REQUIREMENTS:

120/208 vac, 4 wire, 60 Hz, three phase power.

PUBLICATIONS FURNISHED:

Maintenance Instructions, F14A/B LCOFT Device 2F95A NAWCTSD P-7319, (U)

Maintenance Requirement Cards, F14A/B LCOFT Device 2F95A NAWCTSD P-7320, (U)

Commercial Off The Shelf Maintenance Manuals, F14A/B LCOFT Device 2F95A NAWCTSD P-7321, (U)

Instructor Handbook, F14A/B LCOFT Device 2F95A NAWCTSD P-7322, (U)

PERSONNEL:

Instructors: One F-14A/B Pilot.qualified as Device 2F95A Instructor

Trainees: One F-14 Pilot.

Maintenance: Staffed with Contractor Operation and Maintenance Support (COMS) Personnel.

CONTRACT IDENTIFICATION:

Manufactured by Manflight Simulator of NAWC-AD, Patuxent River, Maryland.

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